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upon the condition of the food supply of the mother for its stimulation or suppression of development."

Olfactory Organs of Lepidoptera. — McIndoo ('17, Journ. Morph., 29:33-54) made a morphological study of the olfactory pores of forty-three species of Lepidoptera distributed among nineteen families in order to determine whether these organs are better adapted structurally to receive olfactory stimuli than are the antennal organs. It was found that the olfactory pores of Lepidoptera occur on the legs, wings, and, in some species, on the mouth parts. The disposition of these pores is similar to that of Hymenoptera and Coleoptera. Structurally, they resemble those of other insects, allowing for certain slight variation. Since in these olfactory pores the ends of the sense fibers come into direct contact with the air, they are better adapted structurally to receive olfactory stimuli than are the antennal organs which are covered with hard chitin.

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PHOTOMICROGRAPHS IN COLOR

Mees (American Photography 1917; and English Mechanic, Sept. 14, 1917) communicates from the research laboratory of the Eastman Kodak Co. the process of making lantern slides representing photomicrographs of stained sections. The print is made in stained gelatin instead of the usual process.

The process of making such a print is as follows: Lantern plates (Seed or Standard plates are satisfactory) are sensitised by bathing for five minutes in a 2½ per cent. solution of ammonium bichromate containing 5 c.c. of strong ammonia to the litre, the temperature of the bath being not above 65° F. The plates are then rinsed for two or three seconds in clean water, drained, and dried as uniformly as possible, being kept in the dark during drying. The sensitised plates are then exposed through the glass under the negative to the light of an arc lamp, the average exposure being about three minutes at 18 inches distance. Printing cannot be done by daylight, or sharp images will not be obtained. The exposed plates are then developed by rocking in trays of water at about

120° F. until all soluble gelatin is removed. Under-exposure is indicated by the high-light detail washing away, and over-exposure by the film being insoluble to too great a depth. The plates are then rinsed in cold water, fixed in hypo, and washed free of the hypo. They are then ready for staining.

The staining is done with a one per cent. solution of dye containing one per cent. of acetic acid, the dye being selected to simulate most closely the original stain of the section, the time of dyeing being chosen so that the necessary depth is obtained.

When sections stained with two different colours are being photographed, negatives are made through suitable colour-filters, and are then dyed in the two stains and placed face to face so that a two-colour slide is obtained.

Suppose a section is stained red and green. Two negatives are made on panchromatic plates—one with a red filter, which will cause the green to appear as clear spaces in the negative and will not record the red, and the other with a green filter, which will record the red and not the green. The slides made as described from these in bichromated gelatin are stained—that from the red negative with the original green stain, and that from the green negative with the original red stain.

The filters required can be chosen from the set of filters for photomicrography prepared under the name of Wratten M filters. The choice of the filter is decided by visual trial under the microscope, the filters chosen being those which most nearly absorb one colour and transmit the other. Thus, photographing a section stained with Delafield's hæmatoxylin and precipitated eosin, the A filter (red) shows no trace of the eosin, and gives a good, strong negative of the hæmatoxylin. The B and C filters are used together for the other negative, giving a blue-green colour and recording the eosin and hæmatoxylin both fully, and from these two negatives positives are made and stained with a blue and a red dye.

A SHORT METHOD OF PREPARING HISTOLOGICAL MATERIAL

Dr. L. W. Strong, Pathologist, Woman's Hospital, New York City, published the following modification of current histologic methods in the Journal of the American Medical Association for